

sequence.txt
SEQUENCE LISTING

```

<110> Agriculture Victoria Services Pty Ltd
      AgResearch Limited

<120> Chalcone synthase dihydroflavonol 4-reductase and
      leucoanthocyanidine reductase from clover, medic ryegrass or
      fescue

<130> M80937719:DLT:cl

<140> US 10/552,857
<141> 2005-10-14

<150> 2003901797
<151> 2003-04-14

<150> 2003904369
<151> 2003-08-14

<160> 77

<170> PatentIn version 3.3

<210> 1
<211> 1447
<212> DNA
<213> Trifolium repens

<400> 1
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taagatatgg tgagtgtagc tgaatttcgc aaggctcaga gggctgaagg cctgcgaacc      180
atthttggcca ttggcaactgc aaatccacca aaccgtgttg agcagagcac atatcctgat      240
ttctacttca aaattacaaa cagtgcgcac aagactgagc tcaaagagaa gttccaacgc      300
atgtgtgaca aatccatgat caagagcaga tacatgtatc taacagaaga gattttgaaa      360
gaaaaatccta gtctttgtga atacatggca ccttcattgg atgctaggca agacatgggtg      420
gtgggttgagg tacctagact tgggaaggag gctgcagtca aggccattaa agaattggggt      480
caaccaaagt caaagattac tcaactaatc ttttgcacca caagtgggtg tgacatgcct      540
gggtgctgatt accaactcac aaaactctta ggtcttcgcc catatgtgaa aagggtatag      600
atgtaccaac aagggtgttt tgcaggaggc acggtgcttc gtttggcaaa agatttggcc      660
gagaacaaca aagggtgctg tgtgctagtt gtttgttctg aagtcaccgc agtcacattt      720
cgcggcccca gtgatactca cttggacagt cttgtgggac aagcattggt tggagatgga      780
gccgctgcac taattgttgg ttctgatcca gtgcctgaaa ttgagaaacc aatatttgag      840
atgggttggga ctgcacaaac aattgctcca gacagtgaag gtgccattga tggatcatct      900
cgtgaagctg ggctaacatt tcactctctt aaagatgttc ctgggattgt atcaaagaac      960
attaataaag cattgggtga ggctttccaa ccattaggaa tttctgacta caactcaatc      1020

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agcgcattgt tattgttcat cttagatgag atgcggaaga aatcggtcca aaatggactt 1200
aagacaactg gagaaggact tgattggggt gtgttggtcg gcttcggacc aggacttacc 1260
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tgtattactt ttaattctgc tgccttgaat ttcgatttaa gaataataaa atatatcttt 1380
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cgaattc 1447

```

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<210> 2
<211> 389
<212> PRT
<213> Trifolium repens

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<400> 2

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Met Val Ser Val Ala Glu Ile Arg Lys Ala Gln Arg Ala Glu Gly Pro
1 5 10 15

```

```

Ala Thr Ile Leu Ala Ile Gly Thr Ala Asn Pro Pro Asn Arg Val Glu
20 25 30

```

```

Gln Ser Thr Tyr Pro Asp Phe Tyr Phe Lys Ile Thr Asn Ser Glu His
35 40 45

```

```

Lys Thr Glu Leu Lys Glu Lys Phe Gln Arg Met Cys Asp Lys Ser Met
50 55 60

```

```

Ile Lys Ser Arg Tyr Met Tyr Leu Thr Glu Glu Ile Leu Lys Glu Asn
65 70 75 80

```

```

Pro Ser Leu Cys Glu Tyr Met Ala Pro Ser Leu Asp Ala Arg Gln Asp
85 90 95

```

```

Met Val Val Val Glu Val Pro Arg Leu Gly Lys Glu Ala Ala Val Lys
100 105 110

```

```

Ala Ile Lys Glu Trp Gly Gln Pro Lys Ser Lys Ile Thr His Leu Ile
115 120 125

```

```

Phe Cys Thr Thr Ser Gly Val Asp Met Pro Gly Ala Asp Tyr Gln Leu
130 135 140

```

```

Thr Lys Leu Leu Gly Leu Arg Pro Tyr Val Lys Arg Tyr Met Met Tyr
145 150 155 160

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sequence.txt

Gln Gln Gly Cys Phe Ala Gly Gly Thr Val Leu Arg Leu Ala Lys Asp
 165 170 175

Leu Ala Glu Asn Asn Lys Gly Ala Arg Val Leu Val Val Cys Ser Glu
 180 185 190

Val Thr Ala Val Thr Phe Arg Gly Pro Ser Asp Thr His Leu Asp Ser
 195 200 205

Leu Val Gly Gln Ala Leu Phe Gly Asp Gly Ala Ala Ala Leu Ile Val
 210 215 220

Gly Ser Asp Pro Val Pro Glu Ile Glu Lys Pro Ile Phe Glu Met Val
 225 230 235 240

Trp Thr Ala Gln Thr Ile Ala Pro Asp Ser Glu Gly Ala Ile Asp Gly
 245 250 255

His Leu Arg Glu Ala Gly Leu Thr Phe His Leu Leu Lys Asp Val Pro
 260 265 270

Gly Ile Val Ser Lys Asn Ile Asn Lys Ala Leu Val Glu Ala Phe Gln
 275 280 285

Pro Leu Gly Ile Ser Asp Tyr Asn Ser Ile Phe Trp Ile Ala His Pro
 290 295 300

Gly Gly Pro Ala Ile Leu Asp Gln Val Glu Gln Lys Leu Ala Leu Lys
 305 310 315 320

Pro Glu Lys Met Arg Ala Thr Arg Glu Val Leu Ser Glu Tyr Gly Asn
 325 330 335

Met Ser Ser Ala Cys Val Leu Phe Ile Leu Asp Glu Met Arg Lys Lys
 340 345 350

Ser Ala Gln Asn Gly Leu Lys Thr Thr Gly Glu Gly Leu Asp Trp Gly
 355 360 365

Val Leu Phe Gly Phe Gly Pro Gly Leu Thr Ile Glu Thr Val Val Leu
 370 375 380

Arg Ser Val Ala Ile
 385

<210> 3

sequence.txt

<211> 2394

<212> DNA

<213> *Trifolium repens*

<400> 3

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gacgaaggta tagtgagagg tgtcacaaag cagacaaccc ctgggaaggc tactatatgt	180
gctcttgcca aggcattccc tcaccaactt gtgatgcaag agtgtttagt tgatgggtat	240
tttagggaca ctaattgtga caatcctgaa cttaagcaga aacttgctag actttgtaag	300
acaaccacgg taaaaacaag gtatgttgtt atgaatgagg agatactaaa gaaatatcca	360
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gtaacacaaa tggcaattga agcttcccaa gtttgcttaa agaattgggg tagatcctta	480
tcggacataa ctcatgtggt ttatgtttca tctagtgaag ctgattacc cgggtggtgac	540
ctatacttgt caaaaggact aggactaaac cctaaaattc aaagaacctt gctctatttc	600
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cctggaagta gagttttgct tgctacttcg gaaactacaa ttattggatt caagccacca	720
agtggtgata gaccttatga tcttggtggt gtggcactct ttggagatgg tgctggtgca	780
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ttctgtaata aactaatga tgtgtttggg ttggagaata aggagtacaa taagttgttt	1020
tgggctgtgc atccaggtgg gctcgcgata ttgaatcgcg tggagaagcg gcttgagttg	1080
tcgcccgcga agctgaatgc tagtagaaaa gctctaattg attatggaaa tgctagcagc	1140
aatactattg tttatgtgct ggaatatatg ctagaagagg aaaagaagat taaaaaggcg	1200
ggtggaggag attctgaatg gggattgata ctgcttttg gacctggaat tacttttgag	1260
gggattctag caaggaaact gtgtgcatag agtcttatac aattgtgatg catgacttat	1320
actcttattt ctactaatta ttatattaag caaattcaga acttttaagt aatgatttaa	1380
tgaagaatac ttatagtata ttgactttat tcactttcaa agcaagttaa tgatcctaag	1440
acatggtaga acttgagcat gtggaatagt tgtaacaaaa actctaagca aatagagact	1500
ttatgtagta taaagcattt ccagacatga taaataatgg tacctcagaa cataaaatat	1560
atttagctat ctttcatccc caactttaca catccaccaa ggtacagaat aagcatatgt	1620
caacacaaaa tgtactctaa gtctaacatg agtaacaaaa catgatgcct gattaagtta	1680
aaagaaaaaa aaatctgagg gcatagatct tcaatcacac cactccagag ggaaggcgta	1740

sequence.txt

gaacaagctg tccgccgaaa acactgcaat tcaataaata tcattaggac aacagtgcag	1800
agtcactgcg gaaatgtctt aagtcactgt actaaaaata taggattata ttatgaacta	1860
tactaacctt ttacataat agtaacagaa atcagctaag atgaatgtct ggacaatttc	1920
tgagataaga accatgacgg ccataagcca taccccaagg caaccaataa atgtccacgg	1980
gtatctaaca cctgttgcaa gaaatagtaa gttattagga gatgtgcggt tacgaaattc	2040
aagctacaca acaaaaggag gccagaacaa cagcaatctt gtaaccagat gacaacaata	2100
aaatgtaaac ttaaagagac cgaacacaca aacattgcaa ctcagatgga attgctgcca	2160
tgtaactagt aggagatttg ggacgtcaaa tcagtatat attgcaaatac aaggtatgac	2220
cgcttgtct attgtagcat acaacaaacg tacagtgggt ttgtccctct caaaatggca	2280
ggatctttac agcacaatat ttggttttgt catacttata ccataaaaaa aaaaaaaaaa	2340
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<210> 4
 <211> 391
 <212> PRT
 <213> *Trifolium repens*

<400> 4

Met Gly Asp Glu Gly Ile Val Arg Gly Val Thr Lys Gln Thr Thr Pro	
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Gly Lys Ala Thr Ile Leu Ala Leu Gly Lys Ala Phe Pro His Gln Leu	
20 25 30	

Val Met Gln Glu Cys Leu Val Asp Gly Tyr Phe Arg Asp Thr Asn Cys	
35 40 45	

Asp Asn Pro Glu Leu Lys Gln Lys Leu Ala Arg Leu Cys Lys Thr Thr	
50 55 60	

Thr Val Lys Thr Arg Tyr Val Val Met Asn Glu Glu Ile Leu Lys Lys	
65 70 75 80	

Tyr Pro Glu Leu Val Val Glu Gly Ala Ser Thr Val Lys Gln Arg Leu	
85 90 95	

Glu Ile Cys Asn Glu Ala Val Thr Gln Met Ala Ile Glu Ala Ser Gln	
100 105 110	

Val Cys Leu Lys Asn Trp Gly Arg Ser Leu Ser Asp Ile Thr His Val	
115 120 125	

Val Tyr Val Ser Ser Ser Glu Ala Arg Leu Pro Gly Gly Asp Leu Tyr	
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sequence.txt
140

130
135
Leu Ser Lys Gly Leu Gly Leu Asn Pro Lys Ile Gln Arg Thr Met Leu
145 150 155 160
Tyr Phe Ser Gly Cys Ser Gly Gly Val Ala Gly Leu Arg Val Ala Lys
165 170 175
Asp Val Ala Glu Asn Asn Pro Gly Ser Arg Val Leu Leu Ala Thr Ser
180 185 190
Glu Thr Thr Ile Ile Gly Phe Lys Pro Pro Ser Val Asp Arg Pro Tyr
195 200 205
Asp Leu Val Gly Val Ala Leu Phe Gly Asp Gly Ala Gly Ala Met Ile
210 215 220
Ile Gly Ser Asp Pro Val Phe Glu Thr Glu Thr Pro Leu Phe Glu Leu
225 230 235 240
His Thr Ser Ala Gln Glu Phe Ile Pro Asp Thr Glu Lys Lys Ile Asp
245 250 255
Gly Arg Leu Thr Glu Glu Gly Ile Ser Phe Thr Leu Ala Arg Glu Leu
260 265 270
Pro Gln Ile Ile Glu Asp Asn Val Glu Gly Phe Cys Asn Lys Leu Ile
275 280 285
Asp Val Val Gly Leu Glu Asn Lys Glu Tyr Asn Lys Leu Phe Trp Ala
290 295 300
Val His Pro Gly Gly Pro Ala Ile Leu Asn Arg Val Glu Lys Arg Leu
305 310 315 320
Glu Leu Ser Pro Gln Lys Leu Asn Ala Ser Arg Lys Ala Leu Met Asp
325 330 335
Tyr Gly Asn Ala Ser Ser Asn Thr Ile Val Tyr Val Leu Glu Tyr Met
340 345 350
Leu Glu Glu Glu Lys Lys Ile Lys Lys Ala Gly Gly Gly Asp Ser Glu
355 360 365
Trp Gly Leu Ile Leu Ala Phe Gly Pro Gly Ile Thr Phe Glu Gly Ile
370 375 380

sequence.txt

Leu Ala Arg Asn Leu Cys Ala
385 390

<210> 5
<211> 1653
<212> DNA
<213> *Trifolium repens*

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<400> 5
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gatttgaatg gaagttcctc ggtgaatgga gcacgtgcta gacgtgtccc tactcaggga      180
aaggcaacga tacttgcatg aggaaaggct ttcccgcgcc aggtcctccc tcaagagtgc      240
ttggtggaag gattcattcg cgacactaag tgtgacgata cttatattaa ggagaaattg      300
gagcgtcttt gcaaaaacac aactgtgaaa acaagataca cagtaatgtc aaaggagatc      360
ttagacaact atccagagct agccatagat ggaacaccaa caataaggca aaagcttgaa      420
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ctacccgggtg gtgaccttta tcttgcaaat gaactcgggt taaacagcga tgtaatgcg      600
gtaatgcctc atttctcctg ttgctacggc ggtgtcactg gcttacgtgt cgccaagac      660
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agaatcactg aagaggggtat taattttaag cttggaagag accttcctca aaaaattgaa      960
gacaatattg aagaattttg caagaaaatt atggctaaaa gtgatgttaa ggaatttaat      1020
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ctcctccgta gcctttaato ttgaataaat aattcatatg aaattacttg tcttaagatt      1320
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aattgttcta tgatatcttc attgttgata ctgtaataat ataatatcta atttggctgg      1560
caaaatgaaa gatttttcac cgaaaaaaa aaaaaaaaaa aaaaaaaaaa aagtactctg      1620

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sequence.txt

cgttgttacc actgcttaat cactagttaa ttc

1653

<210> 6
 <211> 389
 <212> PRT
 <213> Trifolium repens

<400> 6

Met Pro Gln Gly Asp Leu Asn Gly Ser Ser Ser Val Asn Gly Ala Arg
 1 5 10 15

Ala Arg Arg Ala Pro Thr Gln Gly Lys Ala Thr Ile Leu Ala Leu Gly
 20 25 30

Lys Ala Phe Pro Ala Gln Val Leu Pro Gln Glu Cys Leu Val Glu Gly
 35 40 45

Phe Ile Arg Asp Thr Lys Cys Asp Asp Thr Tyr Ile Lys Glu Lys Leu
 50 55 60

Glu Arg Leu Cys Lys Asn Thr Thr Val Lys Thr Arg Tyr Thr Val Met
 65 70 75 80

Ser Lys Glu Ile Leu Asp Asn Tyr Pro Glu Leu Ala Ile Asp Gly Thr
 85 90 95

Pro Thr Ile Arg Gln Lys Leu Glu Ile Ala Asn Pro Ala Val Val Glu
 100 105 110

Met Ala Thr Arg Ala Ser Lys Asp Cys Ile Lys Glu Trp Gly Arg Ser
 115 120 125

Pro Gln Asp Ile Thr His Ile Val Tyr Val Ser Ser Ser Glu Ile Arg
 130 135 140

Leu Pro Gly Gly Asp Leu Tyr Leu Ala Asn Glu Leu Gly Leu Asn Ser
 145 150 155 160

Asp Val Asn Arg Val Met Leu Tyr Phe Leu Gly Cys Tyr Gly Gly Val
 165 170 175

Thr Gly Leu Arg Val Ala Lys Asp Ile Ala Glu Asn Asn Pro Gly Ser
 180 185 190

Arg Val Leu Leu Thr Thr Ser Glu Thr Thr Ile Leu Gly Phe Arg Pro
 195 200 205

sequence.txt

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Pro Ser Lys Ala Arg Pro Tyr Asp Leu Val Gly Ala Ala Leu Phe Gly
210                215                220

Asp Gly Ala Ala Ala Ala Ile Ile Gly Thr Asp Pro Ile Leu Asn Gln
225                230                235                240

Glu Ser Pro Phe Met Glu Leu Asn His Ala Val Gln Lys Phe Leu Pro
245                250                255

Asp Thr Gln Asn Val Ile Asp Gly Arg Ile Thr Glu Glu Gly Ile Asn
260                265                270

Phe Lys Leu Gly Arg Asp Leu Pro Gln Lys Ile Glu Asp Asn Ile Glu
275                280                285

Glu Phe Cys Lys Lys Ile Met Ala Lys Ser Asp Val Lys Glu Phe Asn
290                295                300

Asp Leu Phe Trp Ala Val His Pro Gly Gly Pro Ala Ile Leu Asn Lys
305                310                315                320

Leu Glu Asn Ile Leu Lys Leu Lys Ser Asp Lys Leu Asp Cys Ser Arg
325                330                335

Lys Ala Leu Met Asp Tyr Gly Asn Val Ser Ser Asn Thr Ile Phe Tyr
340                345                350

Val Met Glu Tyr Met Arg Asp Tyr Leu Lys Glu Asp Gly Ser Glu Glu
355                360                365

Trp Gly Leu Gly Leu Ala Phe Gly Pro Gly Ile Thr Phe Glu Gly Val
370                375                380

Leu Leu Arg Ser Leu
385

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<210> 7
<211> 1600
<212> DNA
<213> Trifolium repens

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```

<400> 7
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tatcttggtt acatcttttg ttacctccaa caaaaaaatg gtgaccgtag aagagattcg      180
taacgcccaa cggtccaaat gccctgccac tatcttagct ttggccagac ccactccttc      240
taactgtgtc actcaagctg attatcctga ttactacttt cgtatcacca acagcgaaca      300

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sequence.txt

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gaaagatggt ccgggggatta tttcaaagaa cattgaaaaa agtttagtgg aagcttttgc 1020
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<210> 8
<211> 391
<212> PRT
<213> Trifolium repens
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```
<400> 8
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```
Met Val Thr Val Glu Ile Arg Asn Ala Gln Arg Ser Asn Gly Pro
1 5 10 15
```

```
Ala Thr Ile Leu Ala Phe Gly Thr Ala Thr Pro Ser Asn Cys Val Thr
20 25 30
```

```
Gln Ala Asp Tyr Pro Asp Tyr Tyr Phe Arg Ile Thr Asn Ser Glu His
35 40 45
```

sequence.txt

Met Thr Asp Leu Lys Glu Lys Phe Lys Arg Met Cys Asp Arg Ser Met
50 55 60

Ile Lys Lys Arg Tyr Met His Leu Thr Glu Asp Phe Leu Lys Glu Asn
65 70 75 80

Pro Asn Met Cys Glu Tyr Met Ala Pro Ser Leu Asp Val Arg Arg Asp
85 90 95

Ile Val Val Val Glu Val Pro Lys Leu Gly Lys Glu Ala Ala Lys Lys
100 105 110

Ala Ile Cys Glu Trp Gly Gln Pro Lys Ser Lys Ile Thr His Leu Val
115 120 125

Phe Cys Thr Thr Ser Gly Val Asp Met Pro Gly Ala Asp Tyr Gln Leu
130 135 140

Thr Lys Leu Leu Gly Leu Lys Pro Ser Val Lys Arg Leu Met Met Tyr
145 150 155 160

Gln Gln Gly Cys Phe Ala Gly Gly Thr Val Leu Arg Leu Ala Lys Asp
165 170 175

Leu Val Glu Asn Asn Lys Asn Ala Arg Val Leu Val Val Cys Ser Glu
180 185 190

Ile Thr Ala Val Thr Phe Arg Gly Pro Ser Asp Thr His Leu Asp Ser
195 200 205

Leu Val Gly Gln Ala Leu Phe Gly Asp Gly Ala Ala Ala Met Ile Ile
210 215 220

Gly Ala Asp Pro Asp Leu Thr Val Glu Arg Pro Ile Phe Glu Ile Val
225 230 235 240

Ser Ala Ala Gln Thr Ile Leu Pro Asp Ser Asp Gly Ala Ile Asp Gly
245 250 255

His Leu Arg Glu Val Gly Leu Thr Phe His Leu Leu Lys Asp Val Pro
260 265 270

Gly Ile Ile Ser Lys Asn Ile Glu Lys Ser Leu Val Glu Ala Phe Ala
275 280 285

Pro Ile Gly Ile Asn Asp Trp Asn Ser Ile Phe Trp Val Ala His Pro

sequence.txt
300

290
295
Gly Gly Pro Ala Ile Leu Asp Gln Val Glu Glu Lys Leu His Leu Lys
305 310 315 320
Glu Glu Lys Leu Arg Ser Thr Arg His Val Leu Ser Glu Tyr Gly Asn
325 330 335
Met Ser Ser Ala Cys Val Leu Phe Ile Leu Asp Glu Met Arg Lys Arg
340 345 350
Ser Lys Glu Glu Gly Met Ile Thr Thr Gly Glu Gly Leu Glu Trp Gly
355 360 365
Val Leu Phe Gly Phe Gly Pro Gly Leu Thr Val Glu Thr Val Val Leu
370 375 380
His Ser Val Pro Val Gln Gly
385 390

<210> 9
<211> 1309
<212> DNA
<213> Trifolium repens

<400> 9
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ttggaacaaa gaaagcatgt gtgattgggt gcaactgggtt tgttgcatct atgttgatca 180
agcagttact tgaaaagggt tatgctgtta atactaccgt tagagaccca gatagcccta 240
agaaaatatc tcacctagtgt gcaactgcaa gtttggggga actgaatcta ttagagcag 300
acttaacagt tgaagaagat tttgatgctc ctatagcagg atgtgaactt gtttttcaac 360
ttgctacacc tgtgaacttt gcttctcaag atcctgagaa tgacatgata aagccagcaa 420
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tcttaacatc ttcggcagcc gcggtgacta taaatgaact caaagggaca ggtcatgtta 540
tggatgaaac caactggtct gatgttgaat ttctcaacac tgcaaaacca cccacttggg 600
gttatcctgc ctcaaaaatg ctagctgaaa aggctgcatg gaaatttgct gaagaaaatg 660
acattgatct aatcactgtg atacctagtt taacaactgg tccttctctc acaccagata 720
tcccatctag tgttggtggt gcaatgtctc taataacagg caatgatatt ctcataaatt 780
ctttgaaagg aatgcagttt ctgtcgggtt cggtatccat cactcatggt gaggatattt 840
gcgagctca tatatttctt gcagagaaag aatcagcttc tggtagatac atttgctgtg 900

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sequence.txt
ctcacaatac tagtggtccc gagcttgcaa agttttctcaa caaacgatat cctcagtata 960
aagttccaac tgaatttgat gattgcccc gcaaggcaaa gttgataatc tcttctgaaa 1020
agcttatcaa agaagggttc agtttcaagc atggtattgc cgaacttttc gaccagactg 1080
tcgagtattt taagactaag ggggcactga agaattagat ttgatattt ctaattcaat 1140
agcaaaactct aagcttggtt tgtgtttgtg aagttcagag tgaatatca aatgaataag 1200
tggagagagac acaataagag gagagcaca taattttgga aaaaaaaaa aaaaaaaaaa 1260
aaaaaaaaagt actctgcggt gttaccactg cttaatcact agtgaattc 1309

```

```

<210> 10
<211> 338
<212> PRT
<213> Trifolium repens

```

```

<400> 10

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Met Ala Ser Ile Lys Gln Ile Gly Asn Lys Lys Ala Cys Val Ile Gly
1 5 10 15

```

```

Gly Thr Gly Phe Val Ala Ser Met Leu Ile Lys Gln Leu Leu Glu Lys
20 25 30

```

```

Gly Tyr Ala Val Asn Thr Thr Val Arg Asp Pro Asp Ser Pro Lys Lys
35 40 45

```

```

Ile Ser His Leu Val Ala Leu Gln Ser Leu Gly Glu Leu Asn Leu Phe
50 55 60

```

```

Arg Ala Asp Leu Thr Val Glu Glu Asp Phe Asp Ala Pro Ile Ala Gly
65 70 75 80

```

```

Cys Glu Leu Val Phe Gln Leu Ala Thr Pro Val Asn Phe Ala Ser Gln
85 90 95

```

```

Asp Pro Glu Asn Asp Met Ile Lys Pro Ala Ile Lys Gly Val Leu Asn
100 105 110

```

```

Val Leu Lys Ala Ile Ala Arg Ala Lys Glu Val Lys Arg Val Ile Leu
115 120 125

```

```

Thr Ser Ser Ala Ala Val Thr Ile Asn Glu Leu Lys Gly Thr Gly
130 135 140

```

```

His Val Met Asp Glu Thr Asn Trp Ser Asp Val Glu Phe Leu Asn Thr
145 150 155 160

```

```

Ala Lys Pro Pro Thr Trp Gly Tyr Pro Ala Ser Lys Met Leu Ala Glu

```

sequence.txt
165 170 175

Lys Ala Ala Trp Lys Phe Ala Glu Glu Asn Asp Ile Asp Leu Ile Thr
180 185 190

Val Ile Pro Ser Leu Thr Thr Gly Pro Ser Leu Thr Pro Asp Ile Pro
195 200 205

Ser Ser Val Gly Leu Ala Met Ser Leu Ile Thr Gly Asn Asp Phe Leu
210 215 220

Ile Asn Ala Leu Lys Gly Met Gln Phe Leu Ser Gly Ser Leu Ser Ile
225 230 235 240

Thr His Val Glu Asp Ile Cys Arg Ala His Ile Phe Leu Ala Glu Lys
245 250 255

Glu Ser Ala Ser Gly Arg Tyr Ile Cys Cys Ala His Asn Thr Ser Val
260 265 270

Pro Glu Leu Ala Lys Phe Leu Asn Lys Arg Tyr Pro Gln Tyr Lys Val
275 280 285

Pro Thr Glu Phe Asp Asp Cys Pro Ser Lys Ala Lys Leu Ile Ile Ser
290 295 300

Ser Glu Lys Leu Ile Lys Glu Gly Phe Ser Phe Lys His Gly Ile Ala
305 310 315 320

Glu Thr Phe Asp Gln Thr Val Glu Tyr Phe Lys Thr Lys Gly Ala Leu
325 330 335

Lys Asn

```
<210> 11
<211> 1409
<212> DNA
<213> Trifolium repens

<400> 11
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taactctaaa agcaaagcaa tggcaccagc agcaacatca tcaccaacca ctctactac 120
taccaagggt cgtgtcctaa ttgttgagg aacaggtttc attggaaaat ttgtaactga 180
ggcaagtctt tccacaacac acccaaccta cttgttggtt cggccaggac ctcttctctc 240
ttctaaggct gccactatta aggcattcca agagaaaggt gccattgtca tttatggtcg 300
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sequence.txt

ggtaaataat aaggagttca tggagatgat tttgaaaaag tatgagataa atgtagtcac	360
ttctgcaata ggaggctctg atggcttgct ggaacagctt actttgggtg aggccatgaa	420
atctattaac accattaaga ggtttttgcc ttcggaattt ggtcacgatg tggacagagc	480
aaatcctgtg gaacctggcc taacaatgta caaacagaaa cgtttgggta gacgtgtgat	540
cgaagaatct ggtataccat acacctacat ctgttgcaat tcgatcgcat ctggccgcta	600
ctatgacaat tgtcatccat cacagcttcc tccaccgttg gatcaattac atatttatgg	660
tcatggcgat gtcaaagctt actttgttga tggctatgat attgggaaat tcacaatgaa	720
ggtcattgat gatgaaagaa caatcaacaa aaatgttcac tttgacett ctaacaattg	780
ttatagcatg aatgagcttg cttctttgtg ggaaaacaaa attgcacgaa aaattcctag	840
agtgatcgct tctgaagacg atcttctagc aatagccgca gaaaattgca taccggaaag	900
tgtcgtggca ccaatcactc atgatatatt catcaatgga tgtcaagtta acttcaagat	960
agatggaatt catgatgttg aaattggcac tctatatcct ggtgaatcgg taagaagttt	1020
ggaggaatgc tatgagaaat ttgttgtcat ggcggctgac aagattcata aagaagaaac	1080
tggagtacc gcagggtggg gcggcacaac ggctatggta gagccggtgc caatcacagc	1140
ttcctgttga aaaggttcac ctgaggtgga tattcttttg agtcataaga catgttgatt	1200
gttgatgttg ttttcaagaa tgtttcatca tttcatgtgt tttattaatc ctaagtacaa	1260
ataattgctg tctacgtacg ttcttagttg caaaaattct tgttattctc tattgaggtg	1320
aaagtcttca tgtttacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaagt actctgcgtt	1380
gttaccactg cttaatcact agtgaattc	1409

<210> 12
 <211> 356
 <212> PRT
 <213> Trifolium repens
 <400> 12

Met Ala Pro Ala Ala Thr Ser Ser Pro Thr Thr Pro Thr Thr Thr Lys
 1 5 10 15

Gly Arg Val Leu Ile Val Gly Gly Thr Gly Phe Ile Gly Lys Phe Val
 20 25 30

Thr Glu Ala Ser Leu Ser Thr Thr His Pro Thr Tyr Leu Leu Val Arg
 35 40 45

Pro Gly Pro Leu Leu Ser Ser Lys Ala Ala Thr Ile Lys Ala Phe Gln
 50 55 60

Glu Lys Gly Ala Ile Val Ile Tyr Gly Arg Val Asn Asn Lys Glu Phe
 Page 15

sequence.txt

65		70		75		80
Met Glu Met Ile Leu Lys Lys Tyr Glu Ile Asn Val Val Ile Ser Ala						
	85			90		95
Ile Gly Gly Ser Asp Gly Leu Leu Glu Gln Leu Thr Leu Val Glu Ala						
	100		105			110
Met Lys Ser Ile Asn Thr Ile Lys Arg Phe Leu Pro Ser Glu Phe Gly						
	115		120		125	
His Asp Val Asp Arg Ala Asn Pro Val Glu Pro Gly Leu Thr Met Tyr						
	130		135		140	
Lys Gln Lys Arg Leu Val Arg Arg Val Ile Glu Glu Ser Gly Ile Pro						
	145		150		155	160
Tyr Thr Tyr Ile Cys Cys Asn Ser Ile Ala Ser Trp Pro Tyr Tyr Asp						
	165			170		175
Asn Cys His Pro Ser Gln Leu Pro Pro Pro Leu Asp Gln Leu His Ile						
	180		185			190
Tyr Gly His Gly Asp Val Lys Ala Tyr Phe Val Asp Gly Tyr Asp Ile						
	195		200		205	
Gly Lys Phe Thr Met Lys Val Ile Asp Asp Glu Arg Thr Ile Asn Lys						
	210		215		220	
Asn Val His Phe Arg Pro Ser Asn Asn Cys Tyr Ser Met Asn Glu Leu						
	225		230		235	240
Ala Ser Leu Trp Glu Asn Lys Ile Ala Arg Lys Ile Pro Arg Val Ile						
	245		250			255
Val Ser Glu Asp Asp Leu Leu Ala Ile Ala Ala Glu Asn Cys Ile Pro						
	260		265			270
Glu Ser Val Val Ala Pro Ile Thr His Asp Ile Phe Ile Asn Gly Cys						
	275		280		285	
Gln Val Asn Phe Lys Ile Asp Gly Ile His Asp Val Glu Ile Gly Thr						
	290		295		300	
Leu Tyr Pro Gly Glu Ser Val Arg Ser Leu Glu Glu Cys Tyr Glu Lys						
	305		310		315	320

sequence.txt

Phe Val Val Met Ala Ala Asp Lys Ile His Lys Glu Glu Thr Gly Val
 325 330

Thr Ala Gly Gly Gly Gly Thr Thr Ala Met Val Glu Pro Val Pro Ile
 340 345 350

Thr Ala Ser Cys
 355

<210> 13
 <211> 1551
 <212> DNA
 <213> Trifolium repens

<400> 13
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 accaacattg tcacaattaa ctctaaaagc aaagcaatgg caccagcagc aacatcatca 120
 ccaaccactc ctactactac caagggtcgt gtccctaattg ttggaggaac aggttttcatt 180
 ggaaaatttg taactgaggc aagtccttcc acaacacacc caacctactt gttggttcgg 240
 ccaggacctc ttctctcttc taaggctgcc actattaagg cattccaaga gaaagggtgcc 300
 attgtcattt atggtcgggt aaataataag gagttcatgg agatgatttt gaaaaagtat 360
 gagataaatg tagtcatttc tgcaatagga ggctctgatg gcttcttgga acagcttact 420
 ttggtggagg ccatgaaatc tattaacacc attaagaggt ttttgccctc agaatttggt 480
 cacgatgtgg acagagcaaa tcctgtggaa cctggcctaa caatgtacaa acagaaacgt 540
 ttggttagac gtgtgatcga agaactcggg gtaccataca cctacatctg ttgcaattcg 600
 atcgcatcct ggccgtacta tgacaattgt catccatcac agcttcctcc accgttggat 660
 caattacata tttatggtca tggcagatgc aaagcttact ttgttgatgg ctatgatatt 720
 gggaaattca caatgaaggc cattgatgat gaaagaacaa tcaacaaaaa tgttcatttt 780
 cgaccttcta acaattgtta tagcatgaat gagcttgctt ctttgggga aaacaaaatt 840
 gcacgaaaaa ttctagaggt gatcgtctct gaagacgata ttctagcaat agccgcagaa 900
 aactgcatac cggaaagtgt tgtggcatca atcactcatg atatattcat caatggatgt 960
 caagttaact tcaaggtaga tggaattcat gatgttgaaa ttggcactct atatcctggt 1020
 gaatcggtaa gaagtgttga ggaatgctat gagaatttg ttgtcatggc ggctgacaag 1080
 attcataaag aagaaactgg agttaccgca ggtggggcgc gcacaacggc tatggttagag 1140
 ccggtgccaa tcacagcttc ctggtgaaaa gggtcacctg aggtggatat tcttttgagt 1200
 cataagacat gttgattgtt gatgtgtgtt tcaagaatgt tcatcattt catgtgtttt 1260
 attaatccta agtacaaata attgctgtct acgtacgttc ttagtgtgca aaattcttgt 1320
 tattctctat tggggtaaaa gtcttcatgt ttattgtagt tgtgttggtt tttcatatat 1380

sequence.txt

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gctatttgca ataagtatt ttgtgaagca cttgtggtgt atttacttac tactgaaaat 1440
aatggttaca caaaatatat aaaaaaataa aaataagcaa aaaaaaaaaa aaaaaaaaaa 1500
aaaaaaaaaa gtactctgcg ttgttaccac tgcttaatca ctagtgaatt c 1551
```

```
<210> 14
<211> 356
<212> PRT
<213> Trifolium repens
```

```
<400> 14
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```
Met Ala Pro Ala Ala Thr Ser Ser Pro Thr Thr Pro Thr Thr Thr Lys
1 5 10 15
```

```
Gly Arg Val Leu Ile Val Gly Gly Thr Gly Phe Ile Gly Lys Phe Val
20 25 30
```

```
Thr Glu Ala Ser Leu Ser Thr Thr His Pro Thr Tyr Leu Leu Val Arg
35 40 45
```

```
Pro Gly Pro Leu Leu Ser Ser Lys Ala Ala Thr Ile Lys Ala Phe Gln
50 55 60
```

```
Glu Lys Gly Ala Ile Val Ile Tyr Gly Arg Val Asn Asn Lys Glu Phe
65 70 75 80
```

```
Met Glu Met Ile Leu Lys Lys Tyr Glu Ile Asn Val Val Ile Ser Ala
85 90 95
```

```
Ile Gly Gly Ser Asp Gly Leu Leu Glu Gln Leu Thr Leu Val Glu Ala
100 105 110
```

```
Met Lys Ser Ile Asn Thr Ile Lys Arg Phe Leu Pro Ser Glu Phe Gly
115 120 125
```

```
His Asp Val Asp Arg Ala Asn Pro Val Glu Pro Gly Leu Thr Met Tyr
130 135 140
```

```
Lys Gln Lys Arg Leu Val Arg Arg Val Ile Glu Glu Ser Gly Val Pro
145 150 155 160
```

```
Tyr Thr Tyr Ile Cys Cys Asn Ser Ile Ala Ser Trp Pro Tyr Tyr Asp
165 170 175
```

```
Asn Cys His Pro Ser Gln Leu Pro Pro Pro Leu Asp Gln Leu His Ile
180 185 190
```

sequence.txt

Tyr Gly His Gly Asp Val Lys Ala Tyr Phe Val Asp Gly Tyr Asp Ile
195 200 205

Gly Lys Phe Thr Met Lys Val Ile Asp Asp Glu Arg Thr Ile Asn Lys
210 215 220

Asn Val His Phe Arg Pro Ser Asn Asn Cys Tyr Ser Met Asn Glu Leu
225 230 235 240

Ala Ser Leu Trp Glu Asn Lys Ile Ala Arg Lys Ile Pro Arg Val Ile
245 250 255

Val Ser Glu Asp Asp Leu Leu Ala Ile Ala Ala Glu Asn Cys Ile Pro
260 265 270

Glu Ser Val Val Ala Ser Ile Thr His Asp Ile Phe Ile Asn Gly Cys
275 280 285

Gln Val Asn Phe Lys Val Asp Gly Ile His Asp Val Glu Ile Gly Thr
290 295 300

Leu Tyr Pro Gly Glu Ser Val Arg Ser Leu Glu Glu Cys Tyr Glu Lys
305 310 315 320

Phe Val Val Met Ala Ala Asp Lys Ile His Lys Glu Glu Thr Gly Val
325 330 335

Thr Ala Gly Gly Gly Gly Thr Thr Ala Met Val Glu Pro Val Pro Ile
340 345 350

Thr Ala Ser Cys
355

<210> 15
<211> 1384
<212> DNA
<213> Trifolium repens

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taccaagggt cgtgtcctaa ttgttgagg aacaggttct attggaataa ttgtaactga 180
ggcaagtctt tccacaacac acccaacctt ctgttggtt cggccaggac ctcttctctc 240
ttctaaggct gccactatta aggcattcca agagaaaggt gccattgtca ttataggctg 300
ggtaataaat aaggagtcca tggagatgat ttgaaaaag tatgagataa atgtagtcac 360
ttctgcaata ggaggctctg atggcttgct ggaacagctt actttggtgg aggccatgaa 420

sequence.txt

```

atctattaac accattaaga ggtttttgcc ttcggaattt ggtcacgatg tggacagagc 480
agatcctgtg gaacctggcc taacaatgta caaacagaaa cgtttggtta gacgtgtgat 540
cgaagaatct ggtataccat acacctacat ctgttgcaat tcgatcgcat cttggccgta 600
ctatgacaat tgtcatccat cacagcttcc tccaccgttg gatcaattac atatttatgg 660
tcattggcgt gtcaaaagctt actttgttga tggctatgat attgggaaat tcacaatgaa 720
ggtcattgat gatgaaagaa caatcaacaa aaatgttcatt ttcgacctt ctaacaattg 780
ttatagcatg aatgagcttg cttctttgtg ggaaaacaaa attgcacgaa aaattcctag 840
agtgatcgtc tctgaagacg atcttctagc aatagccgca gaaaattgca taccggaaag 900
tgtcgtggca ccaatcactc atgatatatt catcaatgga tgtcaagtta acttcaagat 960
agatggaatt catgatgttg aaattggcac tctatctcct ggtgaatcgg taagaagttt 1020
ggaggaaatgc tatgagaaat ttgttgtcat ggcggctgac aagattcata aagaagaaac 1080
tggagttacc gcaggtgggg gcggcacaaac ggctatggta gagccggctg caatcacagc 1140
ttcctgttga aaaggttcac ctgagtgga tattcttttg agtcataaga catgttgatt 1200
gttgatgttg ttttcaagaa tgtttcatca ttcatgtgt tttattaatc ctaagtacaa 1260
ataattgctg tctacgtacg ttcttagttg caaaaattct tgtatttctc tatcaaaaaa 1320
aaaaaaaaaa aaaaaaaaaa aaagtactct gcgttggtac cactgcttaa tcactagtga 1380
attc 1384

```

```

<210> 16
<211> 356
<212> PRT
<213> Trifolium repens

```

<400> 16

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Met Ala Pro Ala Ala Thr Ser Ser Pro Thr Thr Pro Thr Thr Lys
1 5 10 15

```

```

Gly Arg Val Leu Ile Val Gly Gly Thr Gly Phe Ile Gly Lys Phe Val
20 25 30

```

```

Thr Glu Ala Ser Leu Ser Thr Thr His Pro Thr Tyr Leu Leu Val Arg
35 40 45

```

```

Pro Gly Pro Leu Leu Ser Ser Lys Ala Ala Thr Ile Lys Ala Phe Gln
50 55 60

```

```

Glu Lys Gly Ala Ile Val Ile Tyr Gly Arg Val Asn Asn Lys Glu Phe
65 70 75 80

```

sequence.txt

Met Glu Met Ile Leu Lys Lys Tyr Glu Ile Asn Val Val Ile Ser Ala
85 90 95

Ile Gly Gly Ser Asp Gly Leu Leu Glu Gln Leu Thr Leu Val Glu Ala
100 105 110

Met Lys Ser Ile Asn Thr Ile Lys Arg Phe Leu Pro Ser Glu Phe Gly
115 120 125

His Asp Val Asp Arg Ala Asp Pro Val Glu Pro Gly Leu Thr Met Tyr
130 135 140

Lys Gln Lys Arg Leu Val Arg Arg Val Ile Glu Glu Ser Gly Ile Pro
145 150 155 160

Tyr Thr Tyr Ile Cys Cys Asn Ser Ile Ala Ser Trp Pro Tyr Tyr Asp
165 170 175

Asn Cys His Pro Ser Gln Leu Pro Pro Pro Leu Asp Gln Leu His Ile
180 185 190

Tyr Gly His Gly Asp Val Lys Ala Tyr Phe Val Asp Gly Tyr Asp Ile
195 200 205

Gly Lys Phe Thr Met Lys Val Ile Asp Asp Glu Arg Thr Ile Asn Lys
210 215 220

Asn Val His Phe Arg Pro Ser Asn Asn Cys Tyr Ser Met Asn Glu Leu
225 230 235 240

Ala Ser Leu Trp Glu Asn Lys Ile Ala Arg Lys Ile Pro Arg Val Ile
245 250 255

Val Ser Glu Asp Asp Leu Leu Ala Ile Ala Ala Glu Asn Cys Ile Pro
260 265 270

Glu Ser Val Val Ala Pro Ile Thr His Asp Ile Phe Ile Asn Gly Cys
275 280 285

Gln Val Asn Phe Lys Ile Asp Gly Ile His Asp Val Glu Ile Gly Thr
290 295 300

Leu Tyr Pro Gly Glu Ser Val Arg Ser Leu Glu Glu Cys Tyr Glu Lys
305 310 315 320

Phe Val Val Met Ala Ala Asp Lys Ile His Lys Glu Glu Thr Gly Val
325 330 335

sequence.txt

Thr Ala Gly Gly Gly Gly Thr Thr Ala Met Val Glu Pro Val Pro Ile
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Thr Ala Ser Cys
355

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<220>
<223> Primer sequence

<400> 17
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<210> 18
<211> 19
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 18
tgcctgaaat tgagaaacc 19

<210> 19
<211> 18
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 19
aaagctagcc ttgaagcc 18

<210> 20
<211> 19
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 20
tcggacataa ctcagtgtg 19

<210> 21
<211> 18
<212> DNA
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<220>

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<223> Primer sequence

<400> 21
ttgggttgga gaataagg 18

<210> 22
<211> 18
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 22
tggacattta ttggttgc 18

<210> 23
<211> 18
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 23
tatcatgtct ggaaatgc 18

<210> 24
<211> 19
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 24
agattgcatc aaagaatgg 19

<210> 25
<211> 17
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 25
ggtccaaaag ccaatcc 17

<210> 26
<211> 18
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 26

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	sequence.txt	
taagacgaga catagtgg		18
<210> 27		
<211> 18		
<212> DNA		
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<220>		
<223> Primer sequence		
<400> 27		
tattcactaa gcacatgc		18
<210> 28		
<211> 19		
<212> DNA		
<213> Artificial		
<220>		
<223> Primer sequence		
<400> 28		
tcattttctgc aataggagg		19
<210> 29		
<211> 18		
<212> DNA		
<213> Artificial		
<220>		
<223> Primer sequence		
<400> 29		
atccacctca ggtgaacc		18
<210> 30		
<211> 18		
<212> DNA		
<213> Artificial		
<220>		
<223> Primer sequence		
<400> 30		
aataggaggc tctgatgg		18
<210> 31		
<211> 18		
<212> DNA		
<213> Artificial		
<220>		
<223> Primer sequence		
<400> 31		
atccacctca ggtgaacc		18

sequence.txt

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<210> 32
<211> 17
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 32
aggctctgat ggcttgc 17

<210> 33
<211> 18
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 33
atccacctca ggtgaacc 18

<210> 34
<211> 30
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 34
gaattctaga agatattggtg agttagctg 30

<210> 35
<211> 30
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 35
gaattctaga atcacacatc ttatatagcc 30

<210> 36
<211> 55
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 36
ggggacaagt ttgtacaaaa aagcaggctt ctagaagata tggtgagtgt agctg 55

<210> 37
<211> 55
<212> DNA

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<213> Artificial

<220>
<223> Primer sequence

<400> 37
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<210> 38
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 38
gaattctaga agaagaaata tgggagacga agg 33

<210> 39
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 39
gaattctaga aagacttcat gcacacaagt tcc 33

<210> 40
<211> 34
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 40
gaattctaga tgattcattg ttgtttcca taac 34

<210> 41
<211> 31
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 41
gaattctaga acatattcat cttcctatca c 31

<210> 42
<211> 31
<212> DNA
<213> Artificial

<220>

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<223> Primer sequence

<400> 42
gaattctaga tccaaattct cgtacctcac c 31

<210> 43
<211> 31
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 43
gaattctaga tagttcacat ctctcgccag g 31

<210> 44
<211> 37
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 44
ggatcctcta gagcactagt gtgtataagt ttcttgg 37

<210> 45
<211> 35
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 45
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<210> 46
<211> 52
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 46
ggggacaaagt ttgtacaaaa aagcaggctc tagaaagcaa agcaatggca cc 52

<210> 47
<211> 51
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 47

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sequence.txt
ggggaccact ttgtacaaga aagctgggctc tagatccacc tcaggtgaac c 51

<210> 48
<211> 53
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 48
ggggacaagt ttgtacaaaa aagcaggctc tagaaagcaa tggcaccagc agc 53

<210> 49
<211> 51
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 49
ggggaccact ttgtacaaga aagctgggctc tagatccacc tcaggtgaac c 51

<210> 50
<211> 52
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 50
ggggacaagt ttgtacaaaa aagcaggctc tagataaagc aatggcacca gc 52

<210> 51
<211> 51
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 51
ggggaccact ttgtacaaga aagctgggctc tagatccacc tcaggtgaac c 51

<210> 52
<211> 36
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 52
ccaccatgtt tgaaatttat tatgtgtttt tttccg 36

```

sequence.txt

```

<210> 53
<211> 35
<212> DNA
<213> Artificial

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